

WHAT IS CLAIMED IS:

1. A method for producing a light-transmitting electromagnetic wave-shielding film having a conductive metal portion and a light-transmitting portion, which comprises exposing and developing a silver salt-containing layer containing a silver salt and provided on a support to form a metal silver portion and the light-transmitting portion, and further subjecting the metal silver portion to physical development and/or plating to form the conductive metal portion consisting of the metal silver portion carrying conductive metal particles.

2. The method for producing a light-transmitting electromagnetic wave-shielding film according to Claim 1, wherein the silver salt in the silver salt-containing layer is a silver halide.

3. The method for producing a light-transmitting electromagnetic wave-shielding film according to Claim 2, wherein the silver halide consists mainly of silver bromide.

4. The method for producing a light-transmitting electromagnetic wave-shielding film according to Claim 2, wherein the silver halide contains a rhodium compound and/or an iridium compound.

5. The method for producing a light-transmitting electromagnetic wave-shielding film according to Claim 2, wherein the silver halide contains Pd(II) ions and/or Pd

metal.

6. The method for producing a light-transmitting electromagnetic wave-shielding film according to Claim 1, wherein the silver salt-containing layer has an Ag/binder  
5 volume ratio of 1/4 or higher.

7. The method for producing a light-transmitting electromagnetic wave-shielding film according to Claim 1, wherein the silver salt in the silver salt-containing layer has a diameter as sphere of 0.1 to 100 nm.

10 8. The method for producing a light-transmitting electromagnetic wave-shielding film according to Claim 1, wherein the developer used for the development of the silver salt-containing layer is a lith developer.

9. The method for producing a light-transmitting  
15 electromagnetic wave-shielding film according to Claim 1, wherein an exposed portion after the development contains the metal silver at a content of 50% by weight or more based on the weight of silver contained in the exposed portion before the exposure.

20 10. The method for producing a light-transmitting electromagnetic wave-shielding film according to Claim 1, wherein the plating is performed by electroless plating.

11. The method for producing a light-transmitting electromagnetic wave-shielding film according to Claim 1,  
25 wherein the surface of the conductive metal portion is further subjected to a blackening treatment.

12. The method for producing a light-transmitting

electromagnetic wave-shielding film according to Claim 1,  
wherein the light-transmitting portion does not  
substantially contain physical development nuclei.

13. The method for producing a light-transmitting  
5 electromagnetic wave-shielding film according to Claim 1,  
wherein the light-transmitting electromagnetic wave-  
shielding film has a surface resistance of  $2.5 \Omega/\text{sq}$  or  
lower after the physical development and/or plating,  
and/or the light-transmitting portion has a transmittance  
10 of 95% or higher.

14. A light-transmitting electromagnetic wave-  
shielding film having a conductive metal portion and a  
light-transmitting portion, which is obtainable by the  
production method according to Claim 1.

15 15. The light-transmitting electromagnetic wave-  
shielding film according to Claim 14, wherein weight of  
silver contained in the conductive metal portion accounts  
for 50% by weight or more of the total weight of metal  
components contained in the conductive metal portion.

20 16. The light-transmitting electromagnetic wave-  
shielding film according to Claim 14, wherein the total  
weight of silver, copper and palladium contained in the  
conductive metal portion accounts for 80% by weight or  
more of the total weight of the all metal components.

25 17. The light-transmitting electromagnetic wave-  
shielding film according to Claim 14, wherein a layer  
comprising the conductive metal particles carried by the

conductive metal portion has a thickness of 0.1  $\mu\text{m}$  or larger and less than 5  $\mu\text{m}$  and a surface resistance value of 3  $\Omega/\text{sq}$  or smaller.

18. The light-transmitting electromagnetic wave-shielding film according to Claim 14, wherein the  
5 conductive metal portion has a line width of 0.1  $\mu\text{m}$  or larger and smaller than 18  $\mu\text{m}$ .

19. A plasma display panel having the light-transmitting electromagnetic wave-shielding film according  
10 to Claim 14.

20. A method for producing a light-transmitting electromagnetic wave-shielding film having a conductive metal portion and a light-transmitting portion, which comprises exposing and developing a silver salt-containing  
15 layer containing a silver salt and provided on a support to form a metal silver portion in an exposed portion and the light-transmitting portion in an unexposed portion and further subjecting the metal silver portion to physical development and/or plating to form the conductive metal  
20 portion consisting of the metal silver portion carrying conductive metal particles.